

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number  
**WO 2005/039808 A1**

(51) International Patent Classification<sup>7</sup>: **B23B 45/02**,  
B25B 21/00, B25F 5/00, 5/02, B26B 25/00, B27B 9/00

(21) International Application Number:  
PCT/NZ2004/000269

(22) International Filing Date: 28 October 2004 (28.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
529179 28 October 2003 (28.10.2003) NZ  
532925 13 May 2004 (13.05.2004) NZ

(71) Applicant (for all designated States except US): **IBEX INDUSTRIES LIMITED** [NZ/NZ]; 3/9 Allens Road, East Tamaki, Auckland, 1701 (NZ).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **AVENELL, Eric, Gwyn** [NZ/NZ]; 28 Lauren Grove, Papakura, Auckland, 1703 (NZ).

(74) Agents: **WILSON, Kathryn, S.** et al.; Level 9, James & Wells Tower, 56 Cawley Street, Private Bag, 11907 Auckland (NZ).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

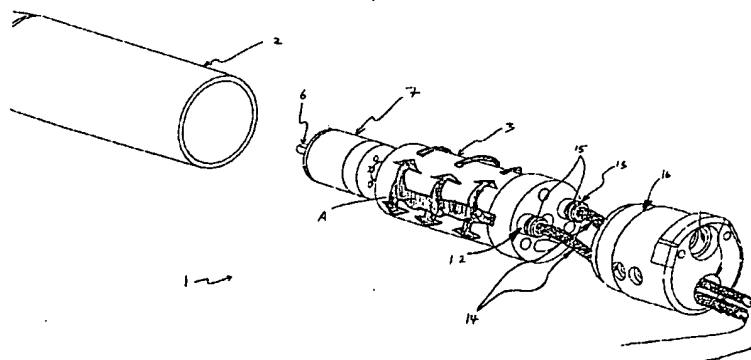
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **POWERED HAND TOOL**



(57) Abstract: The invention relates to a hand tool for use with attachments. The hand tools of the invention may be used with attachments with various speed and torque requirements. Preferred hand tools comprise a body with a brushless DC motor and means which control the energisation of the motor. In use the brushless DC motor of the preferred hand tool is electrically supplied to drive a power output means connected to said motor. Another preferred hand tool comprises a body with a motor contained therein, a void space between an internal surface of the body and at least a part of the motor, a fluid inlet port provided and a fluid outlet port provided in or on the body, and ducting means which provides a channel for fluid supplied via the fluid inlet port to and from the void space and then on to the fluid outlet port.

WO 2005/039808 A1